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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,351	12/21/2001	Christopher Koob	Koob 2-14/063	8094
29391	7590	08/25/2005	EXAMINER	
BEUSSE BROWNLEE WOLTER MORA & MAIRE, P. A. 390 NORTH ORANGE AVENUE SUITE 2500 ORLANDO, FL 32801			TECKLU, MULUBRHAN	
			ART UNIT	PAPER NUMBER
			2191	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/026,351

Applicant(s)

KOOB ET AL.

Examiner

Mulubrhan T. Tecklu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to the application filed on 12/21/2001
2. Claims 1- 12 have been examined.

#### ***Oath/Declaration***

3. The office acknowledges receipt of a properly signed oath/declaration filed on 03/18/2001.

#### ***Claim Objections***

4. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 5, 6, and 7 have been renumbered to 6, 7 and 8, respectively.

Misnumbered claims 7, 8, 9, and 10 have been renumbered to 10, 11 and 12 respectively.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Roth et al. (US 6126328).

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Per Claim 1

Roth discloses:

A method for managing data storage in a memory, comprising:  
creating at least two free link lists having entries designating available free memory locations (in column 1, lines 65-67);  
tracking the number of entries in each of the free link lists (in column 5, lines 50-57);  
identifying free memory locations as such locations become available for data storage (in column 6, lines 15-25); and  
splicing available memory locations onto a shortest one of the free link lists (in column 5 and 6, line 67 and lines 1-10 respectively).

Per claim 2

Roth discloses:

The method of claim 1 wherein each of the link lists to be spliced onto the free link lists is structured to maintain a head pointer, a head plus one pointer and a tail pointer (e.g. FIG. 1, element 14 and 16 and related text).

Per claim 3

Roth discloses:

The method of claim 2 and including the steps of allocating from a head pointer and splicing from head plus one to a tail pointer (in column 10, lines 50-89).

Per claim 4

Roth discloses:

The method of claim 3 and including the steps of simultaneously allocating and freeing memory locations (in column 3, lines 50-53).

Per claim 5

Roth discloses:

The method of claim 4 and including the step of setting the link list tail pointer to the head pointer plus one (in column 10, lines 50-89).

Per claim 6

Roth discloses:

The method of claim 3 and including the step of setting the link list tail pointer to the head pointer plus one (in column 10, lines 50-89)..

Per claim 7

Roth discloses:

The method of claim 5 and including the step of setting the free link list tail pointer to the address of the tail of the last freed memory (in column 5, lines 9-15).

Per claim 8

Roth discloses:

A method for managing data storage in a memory, comprising:  
creating at least two free link lists identifying available data storage locations in the memory (in column 1, lines 65-67);  
storing data in a plurality of data locations in the memory wherein each block of data is stored in a link list and each link list includes a head and a tail (in column 5, lines 23-30);  
reading a head pointer from one of the free link lists to determine a beginning location of a block of data to be stored (in column 6, lines 8-15); and

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simultaneously allocating data storage at a location of a head pointer of the other of the free link lists (in column 3, lines 50-53).

Per claim 9

Roth discloses:

The method of claim 6 and including the step of maintaining a plurality of free link lists wherein each list identifies different lists of available memory (in column 4, lines 5-10).

Per claim 10

Roth discloses:

The method of claim 7 and including the step of adding available link lists to a shortest one of the free link lists so as to maintain balance between the free link lists (in column 5, lines 52-57).

Per claim 11

Roth discloses:

The method of claim 8 wherein the plurality of free link lists comprises two free link lists (in column 9, lines 56-60).

Per claim 12

Roth discloses:

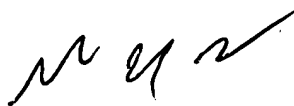
The method of claim 7 and including the steps of simultaneously allocating and freeing memory in one memory cycle (in column 3, lines 50-53).

*Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mulubrhan T. Tecklu whose telephone number is (571) 272-7957. The examiner can normally be reached on M-F 7:00A-3:30P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
WEI Y. ZHEN  
PRIMARY EXAMINER

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